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## Early-Season Weed Competition

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### Early-Season Weed Competition

By Bob Hartzler, Department of Agronomy

The pressure to plant fields in a timely fashion frequently results in delayed application of preemergence herbicides due to rain or windy conditions. This situation isn't as troublesome as it would have been in the past due to the availability of effective postemergence herbicides; however, establishment of weeds with the crop can result in yield loss early in the season if not managed properly.

Research in northern Iowa in 2008 documented a 10 percent yield loss as early as the V2 corn stage due to weed competition. Allowing weeds to grow too long with corn also can increase economic optimum nitrogen rates due to N immobilization by the weeds.

Several factors determine when weeds begin to impact yields, including emergence time, weed species and density, cultural practices and environmental conditions. Due to our inability to predict accurately when weeds begin to impact yields, it is best to act conservatively to minimize risks, particularly in fields with high weed populations.

If a field is heavily infested with weeds (10 weeds or more per square foot), weeds should be controlled before they exceed 2 inches in height. Lighter infestations provide greater flexibility in application timing, but early control will minimize risks and provide more consistent control.

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